ORIGINAL

Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554

SEP - 9 1998

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

| In re Applications of | |
|--------------------------------------|----------------------------|
| • • |) MM Docket No. 90-323 |
| HS COMMUNICATIONS, INC. |) File No. BPH-880505MZ |
| STACY C. BRODY |) File No. BPH-880505NO |
| CRAIG L. SIEBERT |) File No. BPH-880505PM |
| For Construction Permit for a New FM |) |
| | |

To: The Commission

Station on Channel 271A in Virginia Beach, VA

FURTHER SUPPLEMENT TO PETITION FOR LEAVE TO AMEND

CRAIG L. SIEBERT ("Siebert") hereby submits a Further Supplement to the Petition for Leave to Amend that he filed February 6, 1998 (the "Petition") in this case.

- 1. In the Petition, Siebert had asked that the Commission accept Amendment #4 to his application, which proposed a change in transmitter sites for his Virginia Beach station. Siebert had also requested waivers of Section 73.213(c)(1) and 73.315(a) of the Rules.
- 2. In Comments filed May 12, 1998, the Mass Media Bureau generally supported grant of Siebert's Petition and accompanying Amendment #4. Although Siebert and all the other Virginia Beach applicants had requested a waiver of the city-grade coverage requirement, 47 C.F.R. § 73.315(a), the Bureau's Comments concluded that this was unnecessary, based on the alternate prediction of coverage. (Comments,

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- p. 3, ¶ 5).^{1/2} However, the Comments opposed Siebert's requested waiver of Section 73.213(c)(1) as "unnecessary" and propose that Siebert reduce his ERP at the new site and seek processing under the contour protection rules of Section 73.215. After considerable effort to locate another site, Siebert has concluded to stay at the site proposed in Amendment #4 and request processing pursuant to Section 73.215.
- 3. Attached is a further supplement to Amendment #4. The attached supplement propose to reduce power in the direction of WRXL, Richmond, Virginia, and seek "contour protection" processing pursuant to Section 73.215. Although the antenna will be directionalized with the lower power in the azimuth of WRXL, Siebert also will otherwise increase power to the full 6 kilowatts equivalency authorized for a Class A facility, except in the direction of WRXL.²
- 4. Please note that the Federal Aviation Administration has concluded that Siebert's proposed construction would not constitute a hazard to air navigation. See, "Acknowledgement of Notice of Proposed Construction," which is attached as Figure 1 to Statement A of the engineering supplement.

The requested waiver is only "unnecessary" because Siebert has been able to demonstrate by alternative prediction methods that he covers in excess of 80% of the population of Virginia Beach with city-grade coverage. <u>John R. Hughes</u>, 50 Fed. Reg. 5679 (Feb. 11, 1985).

As reported in Siebert's Statement for the Record, filed August 24, 1998, informal discussions with the Bureau indicated that this would be an acceptable means of removing the Bureau's pending objection to the Petition.

WHEREFORE, in light of the foregoing, as well as matters set forth in the Petition, as previously supplemented, Siebert respectfully requests that the Commission accept Amendment #4 to Siebert's application and grant Siebert's application.

Respectfully submitted,

CRAIG L. SIEBERT,

Stephen Diaz Gavin

PATTON BOGGS, L.L.P.

2550 "M" Street, N.W.

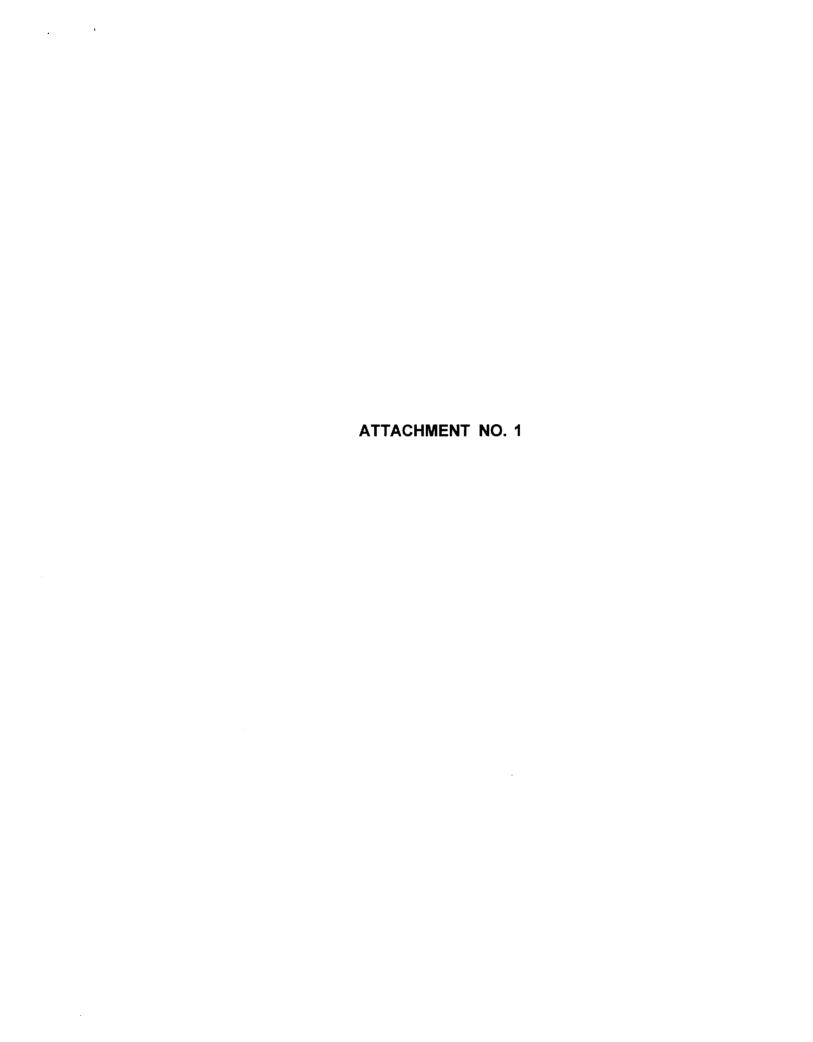
Washington, D.C. 20037

(202) 457-6000

His Counsel

Dated: September 9, 1998

b:\amendsup.mot\8271.100



Amendment to an Application
for a Construction Permit
prepared for
Craig L. Siebert
BPH-880505PM
Ch. 271A 6.0 kW (DA-MAX) 51m
Virginia Beach, Virginia

September 4, 1998



10300 Eaton Place Suite 200 Fairfax, VA 22030 703-591-0110

Amendment to an Application for a Construction Permit

prepared for

Craig L. Siebert BPH-880505PM

Ch. 271A 6.0 kW (DA-MAX) 51m

Virginia Beach, Virginia

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| SECTION V-B - FM BROADCAST EN | NGINEERING DATA | File SS. | PR COMMISSION U e No. B Referral Date ferred By | SE ONLY | |
|---|--|--|---|---------------------------------|----------|
| Name of Applicant Craig L. Siebert | | | | | |
| Call Letters (if issued) | Is this application b | peing filed in respor | nse to a window? | Yes | X N |
| New | If Yes, specify closi | ng date: N/A | | | _ |
| Purpose of Application: (check appropriate | te boxes) See Statem | nent A | | | |
| X Construct a new (main) facility | / | Construc | ct a new auxiliary fac | cility | |
| Amendment to BPH-88 | | Modify of | existing construction | permit for auxiliary | facility |
| Modify licensed main facility | | Modify l | licensed auxiliary fac | cility | |
| If purpose is to modify, indicate below the | e nature of change(s) and s | specify the file num | ber(s) of the authoriz | cations affected. | |
| Antenna supporting structure h | neight | X Effective | e radiated power | | |
| Antenna height above average | terrain | Frequen | су | | |
| Antenna location | | Class | • | | |
| ☐ Main Studio location | | _ | p processing | | |
| X Directional Antenna | | | ummarize) | | |
| File Number(s) BPH-880505E | РМ | Outer (s | | | |
| 1. Allocation: | TI | | | | |
| | pal community to be serve | | | ck only one box belo | |
| County Virginia Beach | City or Town | State | X A | | ☐ C3 |
| 271 City | Virginia Beach | VA | C2 [| □ C1 □ C | |
| 2. Exact location of antenna. (a) Specify address, city, county and 303 Atlantic Avenue (b) Geographical coordinates (to not Otherwise, specify tower location West Longitude will be presume | , Virginia Beach carest second). If mounted on. Specify South Latitude | n, Virginia I d on element of an e and East Longitud | Beach City, V AM array, specify co le where applicable; | irginia oordinates of center | of array |
| | | | | | |
| Latitude * 36° 49' | 58" | Longitude | 75° | 58' | 16" |
| (* NAD-27) 3. Is the supporting structure the sam application(s)? | ne as that of another sta | ation(s) or propose | d in another pendi | ng Yes | X No |
| If Yes, give call letter(s) or file number | er(s) or both. None kr | nown | | | |
| If proposal involves a change in height other appurtenances, and lighting, if | - | | ight above ground le "Nature of Ap | _ | ıa, all |

Section V-B - FM BROADCAST ENGINEERING DATA (Page 2)

| | Does the application propose to correct previous site coordinates? If Yes, list old coordinates. N/A | | | | | | Yes | X No | | |
|-------|--|---------------|--|-------------------|----------------|--------------------------|--------------|-----------|---|------------|
| Lati | tude | | 0 | | P1 | Longitude | | 0 | 1 | 11 |
| | If Y | es, g | AA been notified of the pro ive date and office where ation, if available. Study | notice was file | d and att | tach as an E: 0355-0E | xhibit a co | py of FAA | X Yes Exhibit N Fig. 3 | |
| | Date | e <u>01</u> , | /30/98 | _ Office wh | ere filed | Eastern | Region | - Jamai | ca, NY | |
| | runv (a) | way. S | nding areas within 8 km of See Statement A-"Na Landing Area | ture of App | licati Dis | on" for 1. | ist of l | anding a | earest point of the areas within 8 Bearing (degrees T | km |
| | (b) | | | | | | | | | |
| 7. | (a) | Elev (1) | of site above mean sea lev | | | | | | | 3 meters |
| | | (2) | of the top of supporting stappurtenances, and lighti | | round (in | cluding anten | na, all othe | er | 5 | 3 meters |
| | | (3) | of the top of supporting st | ructure above m | ean sea le | evel [(a)(1) + | (a)(2)]. | | 5 | 6 meters |
| | (b) | Heig | tht of radiation center: (to the | ne nearest meter |) H = Hoi | rizontal; V = | Vertical | | | |
| | | (1) | above ground; | | | | | | 5 | 1 meters (|
| | | | | | | | | | 5 | 1 meters (|
| | | (2) | above mean sea level [(a) | (1) + (b)(1); and | i | | | | 5 | 4 meters (|
| | | | | | | | | | 5 | 4 meters (|
| | | (3) | above average terrain. | | | | | | 5 | 1 meters (|
| | | | | | | | | | 5 | 1 meters (|
| | Que | stion | an Exhibit sketch(es) of t 7 above, except item 7(b)(2 and orientations of all array t | 3). If mounted o | n an AM | I directional a | array eleme | • | Exhibit N Fig. 2 | |
| 9. | Effec | ctive] | Radiated Power: | | | | | | | |
| | (a) | ERP | in the horizontal plane | 6. | <u>0</u> kw (H | I*) | 6.0 kw | (V*) | | |
| | Is beam tilt proposed? | | | | | | | Yes | X No | |
| | | | es, specify maximum ERP cal elevation plot of radiate | d field. | | | | | Exhibit N N/A | 0. |
| | | *Pol | arization | N/ | <u>A</u> kw (H | [*) | N/A kw | (V*) | | |
| CC 30 | | ige 18) | | | | | | | | |

Section V-B - FM BROADCAST ENGINEERING DATA (Page 3) ☐ Yes X No 10. Does this proposal modify a new unbuilt construction permit for an unbuilt, unlicensed facility? Exhibit No. If Yes, submit an Exhibit demonstrating compliance with 47 C.F.R. Section 73,3535 that includes N/A a certification that construction will commence immediately upon grant of the construction permit application. X Yes ☐ No 11. Is a directional antenna proposed? Exhibit No. If Yes, attach as an Exhibit a statement with all data specified in 47 C.F.R. Section 73.316, including Stmt. plot(s), and tabulations of the relative field. Figs. 3A,B,C & Table ☐ Yes X No 12. Will the proposed facility satisfy the requirements of 47 C.F.R. Section 73.315(a) and (b)? Exhibit No. If No, attach as an Exhibit a request for waiver and justification therefor, including amounts and Stmt. percentages of population and area that will not receive 3.16 mV/m service. X Yes □ No 13. Will the main studio be within the protected 3.16 mV/m field strength contour of this proposal? Exhibit No. If No, attach as an Exhibit justification pursuant to 47 C.F.R. Section 73.1125. N/A X No Yes 14. Is this application being filed as a One-step proposal pursuant to the Report & Order in MM Docket 92-159, 8 FCC 2d 4735 (released July 13, 1993)? Exhibit No. If Yes, list the proposed allotment site coordinates to the nearest second below and attach an Exhibit N/A demonstrating that the proposed allotment site is in compliance with the allotment standards. The Exhibit must contain: (1) an allotment site map that complies with the requirements of the April 5, 1985, Public Notice, Mimeo 3693, or a statement that the allotment site will be located on an existing tower; (2) a city coverage map, showing the allotment site is in compliance with 47 C.F.R. Section 73.315; (3) a showing demonstrating that the allotment site meets the minimum distance separation requirements of 47 C.F.R. Section 73.207; and (4) a statement that the proposed allotment site is suitable for tower construction.

| The | coordinates for the prop | | | | | | |
|----------|---------------------------|---|----------------|---------------------|-----|-----|------|
| Latitude | o | , | 11 | Longitude | 0 | • | u |
| 15. (a) | Does the proposed faci | lity satisfy the requ | irements of 47 | C.F.R. Section 73.2 | 07? | Yes | X No |
| (b) | If the answer to (a) is l | f the answer to (a) is No, does 47 C.F.R. Section 73.213 apply? | | | | | |

- If the answer to (b) is Yes, attach as an Exhibit a justification, including a summary of previous (c)
- waivers.
- If the answer to (a) is No and the answer to (b) is No, attach as an Exhibit a statement describing the short spacing(s) and how it or they arose. See Statement D - "Allocations Considerations"
- (e) Is authorization pursuant to 47 C.F.R. Section 73.215 requested?

If the answer to (e) is Yes, attach as an Exhibit a complete engineering study demonstrating compliance with the minimum spacing requirements of 47 C.F.R. Section 73.215(e) and lack of prohibited overlap with the affected stations. The engineering study must include the following:

Exhibit No.

Exhibit No.

N/A

Stmt. D Fig. 4 & 4A

Section V-B - FM BROADCAST ENGINEERING DATA (Page 4)

- (1) Protected and interfering contours, in all directions (360°), for the proposed operation.
- (2) Protected and interfering contours, over pertinent arcs, of all short-spaced assignments, applications and allotments, including a plot showing each transmitter location, with identifying call letters or file numbers, and indication of whether facility is operating or proposed. For vacant allotments, use the reference coordinates as the transmitter location.
- (3) When necessary to show more detail, an additional allocation study utilizing a map with a larger scale to clearly show prohibited overlap will not occur.
- (4) A scale of kilometers and properly labeled longitude and latitude lines, shown across the entire Exhibit(s). Sufficient lines should be shown so that the location of the sites may be verified.
- (5) The official title(s) of the map(s) used in the Exhibit(s).
- 16. Are there: (a) within 60 meters of the proposed antenna, any proposed or authorized FM or TV transmitters, or any nonbroadcast (except citizens band and amateur) radio stations; or (b) within the blanketing contour, any established commercial or government receiving stations, cable head-end facilities, or populated areas; or (c) within ten (10) kilometers of the proposed antenna, any proposed or authorized FM or TV transmitters which may produce receiver-induced intermodulation interference?

☐ No

X Yes

If Yes, attach as an Exhibit a description of any expected, undesired effects of operations and remedial steps to be pursued if necessary, and a statement accepting full responsibility for the elimination of any objectionable interference (including that caused by receiver-induced or other types of modulation) to facilities in existence or authorized or to radio receivers in use prior to grant of this application. (See 47 C.F.R. Sections 73.315(b), 73.316(e) and 73.318.)

See Statement E - "Interference Considerations"

Exhibit No. Stmt. E

17. Attach as an Exhibit a 7.5 minute series U.S. Geological Survey topographic quadrangle map that shows clearly, legibly, and accurately, the location of the proposed transmitting antenna. This map must comply with the requirements set forth in Instruction V (D). The map must further clearly and legibly display the original printed contour lines and data as well as latitude and longitude markings,

Exhibit No. Fig. 5

18. Attach as an Exhibit (name the source) a map which shows clearly, legibly, and accurately, and with the original printed latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. Fig. 6

- (a) the proposed transmitter location, and the radials along which profile graphs have been prepared;
- (b) the 3.16 mV/m and 1 mV/m predicted contours; and

and must bear a scale of distance in kilometers.

- (c) the legal boundaries of the principal community to be served.
- 19. Specify area in square kilometers (1 sq. mi. = 2.59 sq. km.) and population (latest census) within the predicted 1 mV/m contour.

Land

Area ______572 sq. km.

Population 375,333 (1990 U.S. Census)

20. For an application involving an auxiliary facility only, attach as an Exhibit a map (Sectional Aeronautical Chart or equivalent) that shows clearly, legibly, and accurately, and with latitude and longitude markings and a scale of distance in kilometers:

Exhibit No. N/A

- (a) the proposed auxiliary 1 mV/m contour; and
- (b) the 1 mV/m contour of the licensed main facility for which the applied-for facility will be auxiliary. Also specify the file number of the license.

Section V-B - FM BROADCAST ENGINEERING DATA (Page 5)

| 21. Terrain and cove | erage data (to be calculated in accordance w | with 47 C.F.R. Section 73.313) | | | | |
|--|--|--|------------------------------------|--|--|--|
| Source of terrain | n data: (check only one box below) | | | | | |
| Linearly | interpolated 30-second database | 7.5 minute topograph | hic map | | | |
| (Source: | |) | | | | |
| X Linearly | interpolated 3-second database | Other (summarize) | | | | |
| Radial bearing | Height of radiation center above average | Predicted | Distances | | | |
| (degrees True) | elevation of radial from 3 to 16 km (meters) | To the 3.16 mV/m contour (kilometers) | To the 1 mV/m contour (kilometers) | | | |
| * | | | | | | |
| 0 | 53.6 | 11.9 | 21.3 | | | |
| 45 ** | | | | | | |
| 90 * * | | | | | | |
| 135 ** | | | | | | |
| 180 ** | 52.6 | 11.8 | 21.1 | | | |
| 225 ** | 50.0 | 11.5 | 20.6 | | | |
| 270 ** | 49.9 | 11.5 | 20.6 | | | |
| 315 ** | 51.2 | 11.1 | 19.9 | | | |
| ** Entire radi 22. Environmental S Would a Commi may have a signi to levels of RF ra National Standar | *Radial through principal community, if not one of the major radials. This radial should NOT be included in the calculation of HAAT. ** Entire radial excluded from average - Radials & 45° sectors are over water beyond 22. Environmental Statement. (See 47 C.F.R. Section 1.1301 et seq.) Would a Commission grant of this application come within 47 C.F.R. Section 1.1307, such that it may have a significant environmental impact, including exposure of workers or the general public to levels of RF radiation exceeding identified health and safety guidelines issued by the American National Standards Institute? | | | | | |
| If you answer Y Section 1.1311. | es, submit as an Exhibit an Environment | al Assessment required by 47 C.F.F | R. Exhibit No. N/A | | | |
| building wit | riefly why not. Siebert is proposing the restricted access categorically excluded. CERT | g to locate antenna on to See Statement F TIFICATION Considerations" | ' - "Environmental | | | |
| | repared this Section of this application on becurate and true to the best of my knowledge | | such preparation, I have examine | | | |
| Name (Typed or Prin | ted) | Relationship to Applicant (e.g. | , Consulting Engineer) | | | |
| Mark B. Peab | ody | Consultant | | | | |
| Signature May (| Pruhos | Address (include ZIP Code)Cavell, Mertz & Davis, Inc. 10300 Eaton Place Suite 200 Fairfax, Virginia 22030 | | | | |
| Date | | Telephone No. (include Area C | _ | | | |
| September 4, | 1998 | (703) 591-0110 | | | | |

Statement A
NATURE OF APPLICATION

prepared for

Craig L. Siebert

New FM BPH-880505PM

Ch. 271A 6.0 kW (DA-MAX) 51m

Virginia Beach, Virginia

The attached FCC Form 301 and associated exhibits have been prepared to amend the

application of Craig L. Siebert ("Siebert") pursuant to the Consolidated Comments of the Mass

Media Bureau for MM Docket 90-323 dated May 12, 1998 ("Comments"). Siebert is amending his

application to request authorization pursuant to §73.215 of the FCC Rules instead of proceeding with

a request for a waiver of §73.213 for a slight short-spacing to WRXL(FM)(Ch. 271B,

Richmond, VA)

The Comments of the Mass Media Bureau advocate a reduction in ERP to 4.0 kW toward

WRXL(FM) and authorization pursuant to §73.215 of the FCC Rules. Accordingly, Siebert is

proposing to use a directional antenna system which will allow use of a maximum ERP of 6.0 kW

over most azimuths while limiting the ERP in pertinent directions toward WRXL(FM) to 4.0 kW.

Details regarding the Directional Antenna System are discussed in **Statement B** herein.

When predicted in accordance with FCC Rules (§73.313), the 3.16 mV/m principal

community coverage contour for Siebert's instantly proposed facility does not encompass 80% of

the population or area of the city of Virginia Beach. The Comments of the Mass Media Bureau

indicate that compliance with §73.315(a) will be considered to be maintained in light of previous

waiver requests and various submissions regarding the geophysical nature of the area and the

favorable radio wave propagation conditions. A waiver of §73.315(a) is requested and discussed in

Statement C herein.

Siebert is proposing a site which falls 15.8 kilometers short of the §73.207 minimum distance

separation requirement of 178 km toward WRXL(FM) Ch. 271B, Richmond, Virginia. In response

to the May, 1998 Comments of the Mass Media Bureau, Siebert is requesting authorization pursuant

to §73.215 of the FCC Rules. Specific details are provided with **Statement D** and its associated

exhibits.

Cavell, Mertz & Davis, Inc.

Statement A NATURE OF APPLICATION

(continued, Page 2 of 2)

Siebert is proposing to locate his antenna on top of an existing condominium rooftop elevator blockhouse. The FAA has been notified of the proposed increase in height of the structure. A copy of the FAA Acknowledgment of Notice of Proposed Construction (98-AEA-0355-OE) is attached hereto as **Figure 1**. No obstruction marking or lighting requirements are imposed by the FAA. Accordingly, no FCC Form 854 is warranted regarding Antenna Structure Registration.

The following airports and heliports within eight (8) kilometers of the proposed site were identified:

| Type | Name | Location | Azimuth | Distance | |
|------|------------------------|--------------------|---------|----------|--|
| HP | Pavilion | Virginia Beach, VA | 317.6° | 2.09 km | |
| HP | LZ Alfa | Virginia Beach, VA | 353.4° | 4.45 km | |
| AP | Oceana NAS /Apollo | Virginia Beach, VA | 256.2° | 5.71 km | |
| HP | Virginia Beach General | Virginia Beach, VA | 307.4° | 6.10 km | |
| HP | Lynnhaven | Virginia Beach, VA | 302.8° | 6.68 km | |

FIGURE 1 FAA "ACKNOWLEDGEMENT OF NOTICE OF PROPOSED CONSTRUCTION

AERONAUTICAL STUDY

No: 98-AEA-0355-OE

Federal Aviation Administration Eastern Region Air Traffic Division, AEA-531 Fitzgerald Federal Building John F. Kennedy International Airport Jamaica, NY 11430

ACKNOWLEDGEMENT OF NOTICE OF PROPOSED CONSTRUCTION OR ALTERATION

CITY STATE LATITUDE/LONGITUDE MSL AGL AMSL VIRGINIA BEACH VA 36-49-58.53 075-58-14.74 10 173 183

CRAIG L. SIEBERT C/O S.D. GAVIN MARK PEABODY C/O CAVELL, MERTZ SUITE 200, 10300 EATON PLACE FAIRFAX, VA 22030

Type Structure: ANTENNA TOWER 102.1MHZ 4.6KW

The Federal Aviation Administration hereby acknowledges receipt of notice dated 01/30/98 concerning the proposed construction or alteration contained herein.

A study has been conducted under the provisions of Part 77 of the Federal Aviation Regulations to determine whether the proposed construction would be an obstruction to air navigation, whether it should be marked and lighted to enhance safety in air navigation, and whether supplemental notice of start and completion of construction is required to permit timely charting and notification to airmen. The findings of that study are as follows:

The proposed construction would not exceed FAA obstruction standards and would not be a hazard to air navigation.

Obstruction marking and lighting are not necessary.

This determination expires on 09/22/98 unless application is made, (if subject to the licensing authority of the Federal Communications Commission), to the FCC before that date, or it is otherwise extended, revised or terminated.

If the structure is subject to the licensing authority of the FCC, a copy of this acknowledgement will be sent to that agency.

NOTICE IS REQUIRED ANYTIME THE PROJECT IS ABANDONED OR THE PROPOSAL IS MODIFIED

SIGNED William E Thereby Specialist, Airspace Branch.

William E. Merritt (718) 712-6659
ISSUED IN: Jamaica, New York ON 03/23/98

Site Coordinates 36° 49' 58" N 75° 58' 16" W (NAD-27)

> Not to Scale

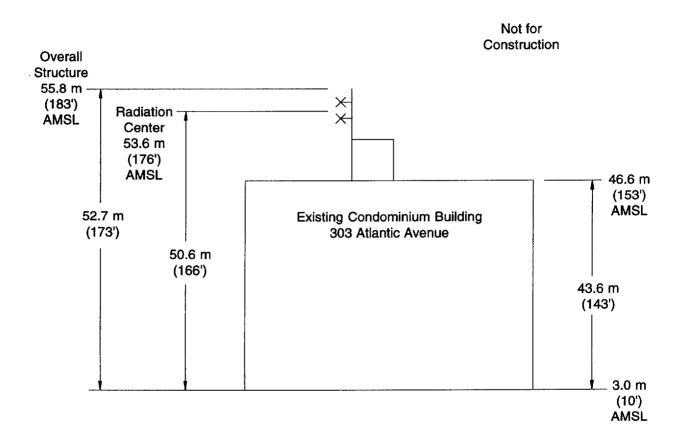


FIGURE 2 ANTENNA SYSTEM ELEVATION PLAN

prepared September 1998 for Craig L. Siebert BPH-880505PM

Virginia Beach, Virginia

Ch. 271A 6.0 kW (DA-MAX) 51 m

Cavell, Mertz and Davis, Inc. Fairfax, Virginia

Statement B

DIRECTIONAL ANTENNA SYSTEM

prepared for

Craig L. Siebert

New FM BPH-880505PM

Ch. 271A 6.0 kW (DA-MAX) 51m

Virginia Beach, Virginia

Craig L. Siebert ("Siebert") is filing an amendment to his application for Ch. 271A at

Virginia Beach. Herewith, Siebert is proposing an ERP of 6.0 kW from a two bay custom, half wave

spaced antenna mounted to provide a specific, slight suppression to 4.0 kW toward WRXL(FM)

(N 296° E through N 310° E) for authorization pursuant to §73.215.

Attached as Figures 3A and 3B are horizontal plane radiation patterns for the proposed

§73.215 envelope expressed in terms of relative field and decibels relative to a kiloWatt,

respectively. Figure 3C, a two bay half wave spaced vertical plane radiation pattern prepared by

Shively Labs, is provided as a typical representation of the vertical plane radiation characteristics of

the proposed antenna. Table I is also provided herewith to list the data for Figures 3A and 3B.

The proposed antenna system will be a custom Shively model 6017 2/4-SS-DA antenna and

will provide a radiation pattern to fit within the envelope pattern shown as **Figure 3A**. Siebert is not

proposing to exceed the 15 dB maximum to minimum ratio in the horizontal plane, nor is Siebert

proposing a pattern which varies by more than 2 dB per 10 degrees.

The antenna will be mounted on a pole or other suitable support structure erected above the

elevator block house on the roof of a building in a manner recommended by the antenna

manufacturer. The antenna will not be mounted on the top of an antenna tower which includes a top

mounted platform larger than the nominal cross sectional area of the tower in the horizontal plane.

No other antenna of any type will be mounted on the same support pole/tower at the same level as

the proposed antenna, nor will any antennas be mounted within any horizontal or vertical distance

of the proposed antenna as specified by the antenna manufacturer as being necessary for proper

directional operation. Full information on the actual antenna system will be provided with an

application for license upon completion of construction in accordance with FCC Rules.

Cavell, Mertz & Davis, Inc.

FIGURE 3A HORIZONTAL PLANE RADIATION PATTERN (EXPRESSED in RELATIVE FIELD)

prepared September 1998 for Craig L. Siebert BPH-880505PM Virginia Beach, Virginia

Ch. 271A 6.0 kW (DA-MAX) 51 m

Cavell, Mertz & Davis, Inc. Fairfax, Virginia



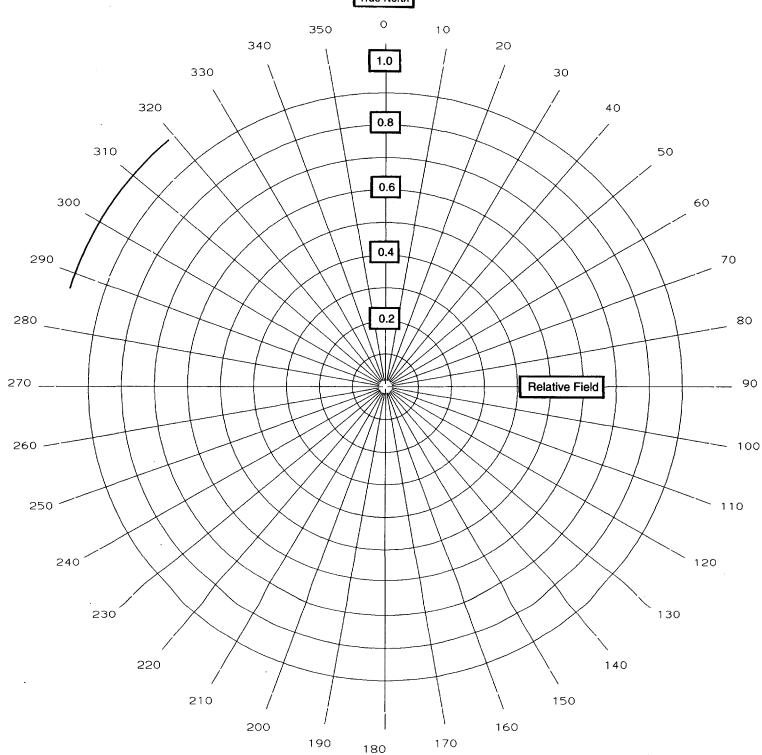


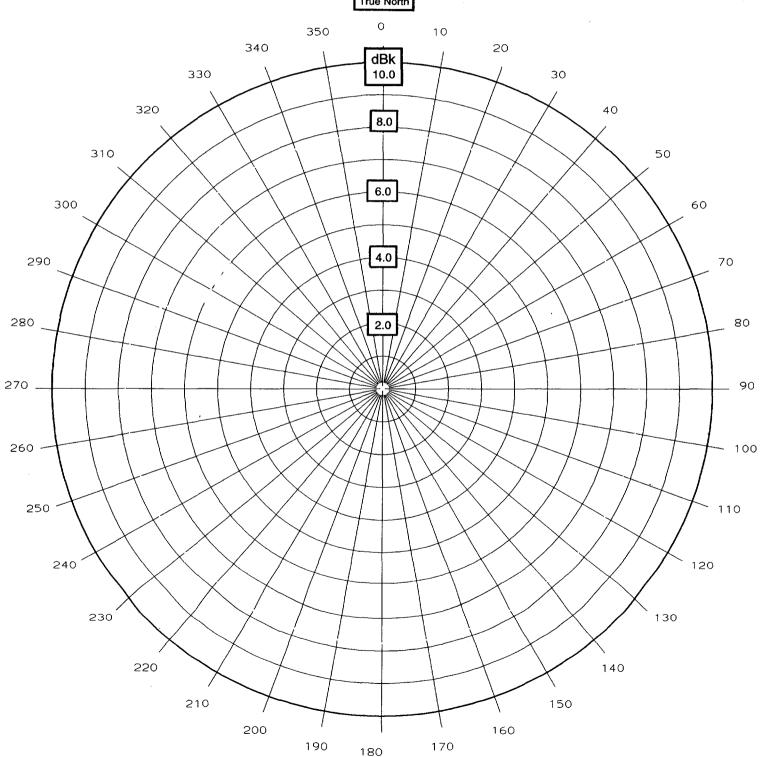
FIGURE 3B HORIZONTAL PLANE RADIATION PATTERN (EXPRESSED in dBk)

prepared September 1998 for Craig L. Siebert BPH-880505PM Virginia Beach, Virginia

Ch. 271A 6.0 kW (DA-MAX) 51 m

Cavell, Mertz & Davis, Inc. Fairfax, Virginia

True North



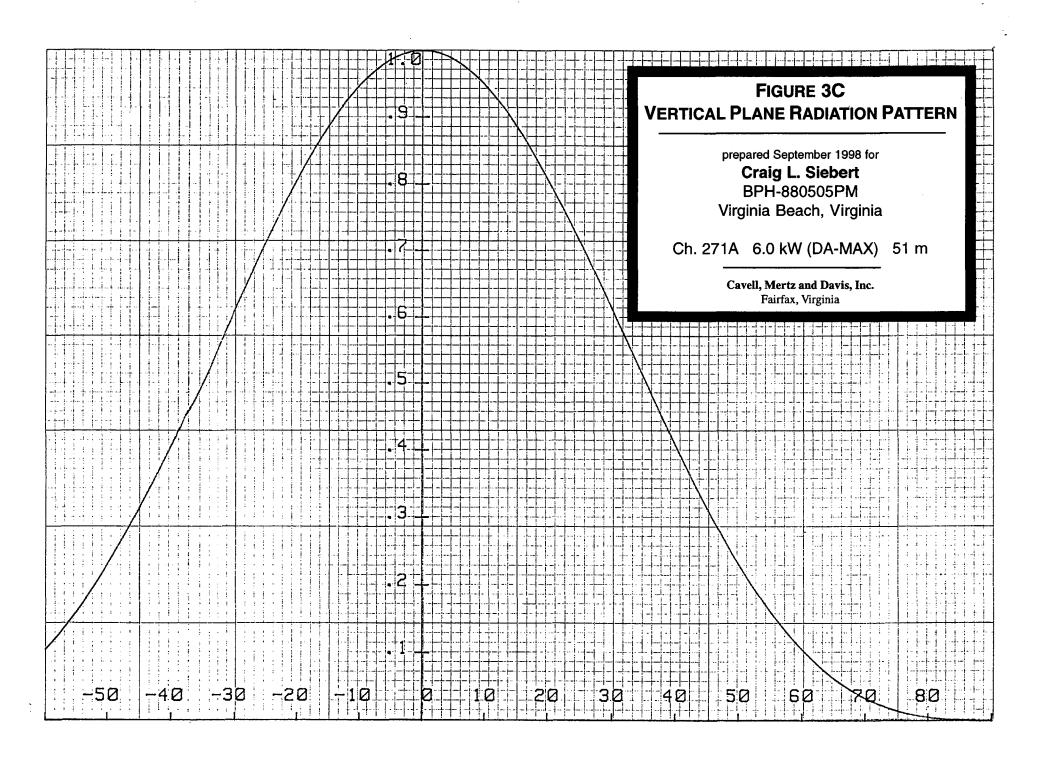


Table I DATA FOR ANTENNA PATTERNS HORIZONTAL PLANE RADIATION

prepared for

Craig L. Siebert
New FM BPH-880505PM
Ch. 271A 6.0 kW (DA-MAX) 51m

Virginia Beach, Virginia

| 0 1,000 7,782 175 1,000 7,782 300 0.817 6.021 5 1,000 7,782 180 1,000 7,782 300 0.817 6.021 10 1,000 7,782 186 1,000 7,782 301 0.817 6.021 20 1,000 7,782 195 1,000 7,782 303 0.817 6.021 25 1,000 7,782 205 1,000 7,782 304 0.817 6.021 35 1,000 7,782 205 1,000 7,782 306 0.817 6.021 40 1,000 7,782 215 1,000 7,782 306 0.817 6.021 45 1,000 7,782 215 1,000 7,782 307 0.817 6.021 45 1,000 7,782 225 1,000 7,782 309 0.817 6.021 50 1,000 7,782 | Azim. (° T) | Rel. Fld. | dBk | Azim. (° T) | Rel. Fld. | dBk | Azim. (° T) | Rel. Fld. | dBk |
|--|--------------------|-----------|-------|----------------|-----------|-------|----------------|-----------|-------|
| 10 1.000 7.782 185 1.000 7.782 301 0.817 6.021 15 1.000 7.782 190 1.000 7.782 302 0.817 6.021 20 1.000 7.782 195 1.000 7.782 303 0.817 6.021 25 1.000 7.782 200 1.000 7.782 304 0.817 6.021 30 1.000 7.782 205 1.000 7.782 305 0.817 6.021 35 1.000 7.782 215 1.000 7.782 306 0.817 6.021 40 1.000 7.782 221 1.000 7.782 308 0.817 6.021 45 1.000 7.782 220 1.000 7.782 308 0.817 6.021 50 1.000 7.782 220 1.000 7.782 310 0.817 6.021 60 1.000 7.782 <td>0</td> <td>1.000</td> <td>7.782</td> <td>175</td> <td>1.000</td> <td>7.782</td> <td>299</td> <td>0.817</td> <td>6.021</td> | 0 | 1.000 | 7.782 | 175 | 1.000 | 7.782 | 299 | 0.817 | 6.021 |
| 15 1.000 7.782 190 1.000 7.782 302 0.817 6.021 20 1.000 7.782 195 1.000 7.782 303 0.817 6.021 25 1.000 7.782 200 1.000 7.782 304 0.817 6.021 30 1.000 7.782 205 1.000 7.782 305 0.817 6.021 35 1.000 7.782 210 1.000 7.782 306 0.817 6.021 40 1.000 7.782 215 1.000 7.782 307 0.817 6.021 45 1.000 7.782 220 1.000 7.782 309 0.817 6.021 50 1.000 7.782 225 1.000 7.782 309 0.817 6.021 50 1.000 7.782 225 1.000 7.782 310 0.817 6.021 50 1.000 7.782 <td>5</td> <td>1.000</td> <td>7.782</td> <td>180</td> <td>1.000</td> <td>7.782</td> <td>300</td> <td>0.817</td> <td>6.021</td> | 5 | 1.000 | 7.782 | 180 | 1.000 | 7.782 | 300 | 0.817 | 6.021 |
| 20 1.000 7.782 195 1.000 7.782 303 0.817 6.021 25 1.000 7.782 200 1.000 7.782 304 0.817 6.021 30 1.000 7.782 205 1.000 7.782 306 0.817 6.021 35 1.000 7.782 210 1.000 7.782 306 0.817 6.021 40 1.000 7.782 225 1.000 7.782 307 0.817 6.021 45 1.000 7.782 225 1.000 7.782 308 0.817 6.021 50 1.000 7.782 225 1.000 7.782 309 0.817 6.021 55 1.000 7.782 225 1.000 7.782 310 0.817 6.021 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 <td>10</td> <td>1.000</td> <td>7.782</td> <td>185</td> <td>1.000</td> <td>7.782</td> <td>301</td> <td>0.817</td> <td>6.021</td> | 10 | 1.000 | 7.782 | 185 | 1.000 | 7.782 | 301 | 0.817 | 6.021 |
| 25 1,000 7,782 200 1,000 7,782 304 0,817 6,021 30 1,000 7,782 205 1,000 7,782 305 0,817 6,021 35 1,000 7,782 210 1,000 7,782 307 0,817 6,021 40 1,000 7,782 220 1,000 7,782 308 0,817 6,021 45 1,000 7,782 220 1,000 7,782 308 0,817 6,021 50 1,000 7,782 225 1,000 7,782 309 0,817 6,021 55 1,000 7,782 235 1,000 7,782 310 0,817 6,021 60 1,000 7,782 235 1,000 7,782 311 0,832 6,182 65 1,000 7,782 245 1,000 7,782 313 0,871 6,582 75 1,000 7,782 <td>15</td> <td>1.000</td> <td>7.782</td> <td>190</td> <td>1.000</td> <td>7.782</td> <td>302</td> <td>0.817</td> <td>6.021</td> | 15 | 1.000 | 7.782 | 190 | 1.000 | 7.782 | 302 | 0.817 | 6.021 |
| 30 1.000 7.782 205 1.000 7.782 305 0.817 6.021 35 1.000 7.782 210 1.000 7.782 306 0.817 6.021 40 1.000 7.782 215 1.000 7.782 307 0.817 6.021 45 1.000 7.782 220 1.000 7.782 308 0.817 6.021 50 1.000 7.782 225 1.000 7.782 309 0.817 6.021 55 1.000 7.782 235 1.000 7.782 310 0.817 6.021 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 245 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 314 0.891 6.782 85 1.000 7.782 <td>20</td> <td>1.000</td> <td>7.782</td> <td>195</td> <td>1.000</td> <td>7.782</td> <td>303</td> <td>0.817</td> <td>6.021</td> | 20 | 1.000 | 7.782 | 195 | 1.000 | 7.782 | 303 | 0.817 | 6.021 |
| 35 1.000 7.782 210 1.000 7.782 306 0.817 6.021 40 1.000 7.782 215 1.000 7.782 307 0.817 6.021 45 1.000 7.782 220 1.000 7.782 308 0.817 6.021 50 1.000 7.782 225 1.000 7.782 309 0.817 6.021 55 1.000 7.782 230 1.000 7.782 310 0.817 6.021 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 245 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 314 0.891 6.782 75 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 <td>25</td> <td>1.000</td> <td>7.782</td> <td>200</td> <td>1.000</td> <td>7.782</td> <td>304</td> <td>0.817</td> <td>6.021</td> | 25 | 1.000 | 7.782 | 200 | 1.000 | 7.782 | 304 | 0.817 | 6.021 |
| 40 1.000 7.782 215 1.000 7.782 307 0.817 6.021 45 1.000 7.782 220 1.000 7.782 308 0.817 6.021 50 1.000 7.782 225 1.000 7.782 309 0.817 6.021 55 1.000 7.782 230 1.000 7.782 310 0.817 6.021 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 240 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 313 0.871 6.582 75 1.000 7.782 255 1.000 7.782 314 0.891 6.782 80 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 <td>30</td> <td>1.000</td> <td>7.782</td> <td>205</td> <td>1.000</td> <td>7.782</td> <td>305</td> <td>0.817</td> <td>6.021</td> | 30 | 1.000 | 7.782 | 205 | 1.000 | 7.782 | 305 | 0.817 | 6.021 |
| 45 1.000 7.782 220 1.000 7.782 308 0.817 6.021 50 1.000 7.782 225 1.000 7.782 309 0.817 6.021 55 1.000 7.782 230 1.000 7.782 310 0.817 6.021 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 240 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 314 0.891 6.582 75 1.000 7.782 250 1.000 7.782 314 0.891 6.782 80 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 266 1.000 7.782 316 0.933 7.182 95 1.000 7.782 <td>35</td> <td>1.000</td> <td>7.782</td> <td>210</td> <td>1.000</td> <td>7.782</td> <td>306</td> <td>0.817</td> <td>6.021</td> | 35 | 1.000 | 7.782 | 210 | 1.000 | 7.782 | 306 | 0.817 | 6.021 |
| 50 1.000 7.782 225 1.000 7.782 309 0.817 6.021 55 1.000 7.782 230 1.000 7.782 310 0.817 6.021 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 240 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 314 0.891 6.782 75 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 265 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 316 0.933 7.182 95 1.000 7.782 265 1.000 7.782 317 0.955 7.382 105 1.000 7.782 <t< td=""><td>40</td><td>1.000</td><td>7.782</td><td>215</td><td>1.000</td><td>7.782</td><td>307</td><td>0.817</td><td>6.021</td></t<> | 40 | 1.000 | 7.782 | 215 | 1.000 | 7.782 | 307 | 0.817 | 6.021 |
| 55 1.000 7.782 230 1.000 7.782 310 0.817 6.021 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 240 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 313 0.871 6.582 75 1.000 7.782 250 1.000 7.782 314 0.891 6.782 80 1.000 7.782 265 1.000 7.782 315 0.912 6.982 85 1.000 7.782 260 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 275 1.000 7.782 318 0.977 7.582 100 1.000 7.782 <td>45</td> <td>1.000</td> <td>7.782</td> <td>220</td> <td>1.000</td> <td>7.782</td> <td>308</td> <td>0.817</td> <td>6.021</td> | 45 | 1.000 | 7.782 | 220 | 1.000 | 7.782 | 308 | 0.817 | 6.021 |
| 60 1.000 7.782 235 1.000 7.782 311 0.832 6.182 65 1.000 7.782 240 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 313 0.871 6.582 75 1.000 7.782 250 1.000 7.782 314 0.891 6.782 80 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 260 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 | 50 | 1.000 | 7.782 | 225 | 1.000 | 7.782 | 309 | 0.817 | 6.021 |
| 65 1.000 7.782 240 1.000 7.782 312 0.851 6.382 70 1.000 7.782 245 1.000 7.782 313 0.871 6.582 75 1.000 7.782 250 1.000 7.782 314 0.891 6.782 80 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 260 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 325 1.000 7.782 115 1.000 7.782 285 1.000 7.782 325 1.000 7.782 12 | 55 | 1.000 | 7.782 | 230 | 1.000 | 7.782 | 310 | 0.817 | 6.021 |
| 70 1.000 7.782 245 1.000 7.782 313 0.871 6.582 75 1.000 7.782 250 1.000 7.782 314 0.891 6.782 80 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 260 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 335 1.000 7.782 1 | 60 | 1.000 | 7.782 | 235 | 1.000 | 7.782 | 311 | 0.832 | 6.182 |
| 75 1.000 7.782 250 1.000 7.782 314 0.891 6.782 80 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 260 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 335 1.000 7.782 120 1.000 7.78 | 65 | 1.000 | 7.782 | 240 | 1.000 | 7.782 | 312 | 0.851 | 6.382 |
| 80 1.000 7.782 255 1.000 7.782 315 0.912 6.982 85 1.000 7.782 260 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 <td< td=""><td>70</td><td>1.000</td><td>7.782</td><td>245</td><td>1.000</td><td>7.782</td><td>313</td><td>0.871</td><td>6.582</td></td<> | 70 | 1.000 | 7.782 | 245 | 1.000 | 7.782 | 313 | 0.871 | 6.582 |
| 85 1.000 7.782 260 1.000 7.782 316 0.933 7.182 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 <t< td=""><td>75</td><td>1.000</td><td>7.782</td><td>250</td><td>1.000</td><td>7.782</td><td>314</td><td>0.891</td><td>6.782</td></t<> | 75 | 1.000 | 7.782 | 250 | 1.000 | 7.782 | 314 | 0.891 | 6.782 |
| 90 1.000 7.782 265 1.000 7.782 317 0.955 7.382 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 < | 80 | 1.000 | 7.782 | 255 | 1.000 | 7.782 | 315 | 0.912 | 6.982 |
| 95 1.000 7.782 270 1.000 7.782 318 0.977 7.582 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 | 85 | 1.000 | 7.782 | 260 | 1.000 | 7.782 | 316 | 0.933 | 7.182 |
| 100 1.000 7.782 275 1.000 7.782 319 1.000 7.782 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 294 0.851 6.382 155 1.000 7.782 | 90 | 1.000 | 7.782 | 265 | 1.000 | 7.782 | 317 | 0.955 | 7.382 |
| 105 1.000 7.782 280 1.000 7.782 320 1.000 7.782 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 296 0.817 6.021 < | 95 | 1.000 | 7.782 | 270 | 1.000 | 7.782 | 318 | 0.977 | 7.582 |
| 110 1.000 7.782 285 1.000 7.782 325 1.000 7.782 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 < | 100 | 1.000 | 7.782 | 275 | 1.000 | 7.782 | 319 | 1.000 | 7.782 |
| 115 1.000 7.782 287 1.000 7.782 330 1.000 7.782 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 105 | 1.000 | 7.782 | 280 | 1.000 | 7.782 | 320 | 1.000 | 7.782 |
| 120 1.000 7.782 288 0.977 7.582 335 1.000 7.782 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 110 | 1.000 | 7.782 | 285 | 1.000 | 7.782 | 325 | 1.000 | 7.782 |
| 125 1.000 7.782 289 0.955 7.382 340 1.000 7.782 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 115 | 1.000 | 7.782 | 287 | 1.000 | 7.782 | 330 | 1.000 | 7.782 |
| 130 1.000 7.782 290 0.933 7.182 345 1.000 7.782 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 120 | 1.000 | 7.782 | 288 | 0.977 | 7.582 | 335 | 1.000 | 7.782 |
| 135 1.000 7.782 291 0.912 6.982 350 1.000 7.782 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 125 | 1.000 | 7.782 | 289 | 0.955 | 7.382 | 340 | 1.000 | 7.782 |
| 140 1.000 7.782 292 0.891 6.782 355 1.000 7.782 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 130 | 1.000 | 7.782 | 290 | 0.933 | 7.182 | 345 | 1.000 | 7.782 |
| 145 1.000 7.782 293 0.871 6.582 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 135 | 1.000 | 7.782 | 291 | 0.912 | 6.982 | 350 | 1.000 | 7.782 |
| 150 1.000 7.782 294 0.851 6.382 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 140 | 1.000 | 7.782 | 292 | 0.891 | 6.782 | 355 | 1.000 | 7.782 |
| 155 1.000 7.782 295 0.832 6.182 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 145 | 1.000 | 7.782 | 293 | 0.871 | 6.582 | | | |
| 160 1.000 7.782 296 0.817 6.021 165 1.000 7.782 297 0.817 6.021 | 150 | 1.000 | 7.782 | 294 | 0.851 | 6.382 | | | |
| 165 1.000 7.782 297 0.817 6.021 | 155 | 1.000 | 7.782 | 295 | 0.832 | 6.182 | | | |
| | 160 | 1.000 | 7.782 | 296 | 0.817 | 6.021 | | | |
| 170 1.000 7.782 298 0.817 6.021 | 165 | 1.000 | 7.782 | 297 | 0.817 | 6.021 | | | |
| | 170 | 1.000 | 7.782 | 298 | 0.817 | 6.021 | | | |

Cavell, Mertz & Davis, Inc.

Statement C 3.16 mV/m COVERAGE OF THE PRINCIPAL COMMUNITY

prepared for

Craig L. Siebert

New FM BPH-880505PM Ch. 271A 6.0 kW (DA-MAX) 51m

Virginia Beach, Virginia

Craig L. Siebert ("Siebert") is filing an amendment to his application for Ch. 271A at Virginia Beach. As discussed in the Initial Decision for MM Docket 90-323 regarding Ch. 271A at Virginia Beach, Virginia, released February 13, 1992, all of the originally filed applications for Virginia Beach sought waivers of §73.315(a). Due to the size of the principal community and the limited area that may be served by a Class A 3.0 kW/100m facility, none of the applicants were able to encompass 80% of the city of Virginia Beach with the predicted 3.16 mV/m coverage contour. The Mass Media Bureau supported the applicants' requests for waivers. The initial decision granted the waiver of §73.315(a) of the FCC Rules to all applicants. **Figure 6** depicts the currently proposed predicted 70 dBu contour with the bounds of the city of Virginia Beach as shaded in yellow.

Siebert's originally proposed 70 dBu contour encompasses 90,670 of the 363,069 people in the city of Virginia Beach (25%), based on 1990 U.S. Census data. Based on the same block level data, the instant amendment proposes a 70 dBu contour which will encompass 144,885 of the 363,069 people of Virginia Beach City (39.9%). This is a significant improvement over what was previously proposed and, by the Initial Decision, approved by the Commission. Siebert therefore continues to respectfully request a waiver of §73.315(a) of the FCC Rules.

It should be noted here that there is significant information on file for MM Docket 90-323 and the *Siebert* application regarding compliance with §73.315(a) of the FCC rules and 3.16 mV/m coverage of the city of Virginia Beach.

An April, 1991 Joint Engineering Statement was submitted for MM Docket 90-323 and a copy was resubmitted as an attachment to a supplemental filing for an amendment to *Siebert's* application in March, 1998. That joint engineering statement propounded use of certain alternative propagation prediction methods to demonstrate that it is likely that all of the population of the city

Cavell, Mertz & Davis, Inc.

Statement C 3.16 mV/m Coverage of Principal Community

(continued Page 2 of 2)

of Virginia Beach, or at least more than 80%, would indeed be encompassed by a 3.16 mV/m or better signal strength contour from all of the proposed sites with 3.0 kW facilities.

A March, 1998 supplemental filing to an amendment to *Siebert's* application also submitted various additional information regarding the waiver §73.315(a) and 3.16 mV/m principal community coverage. The additional material filed offered the conclusion that, considering various alternative propagation predictions, the *Siebert* amendment to use an ERP of 4.6 kW with an omnidirectional antenna at the proposed site, 53.6m AMSL, would encompass more than 80% of the population of the city of Virginia Beach.

With the instant amendment, *Siebert* is proposing to utilize a directional antenna system with a maximum ERP of 6.0 kW in most directions but which limits the ERP toward co-channel WRXL(FM) to 4.0 kW. The increase in ERP from 4.6 to 6.0 kW in most directions will improve the extent of 3.16 mV/m coverage of the city of Virginia Beach from what *Siebert* proposed with a filing on February 6, 1998.¹

The May 12, 1998 Consolidated Comments of the Mass Media Bureau support a waiver of §73.315(a) for *Siebert* here by stating that a reduction in ERP to 4.0 kW, which is necessary for §73.215 processing, would maintain compliance with §73.315(a).

Should additional information be deemed necessary to ascertain the specific percentage of population within the city of Virginia Beach to be encompassed by the proposed facilities with alternative propagation prediction methods, it will be prepared and supplied upon request. In light of all of the foregoing filings however, additional material is omitted here for the sake of expedience. In so far as it may be warranted, *Siebert* continues to respectfully request a waiver of §73.315(a) of the FCC Rules.

The February, 1998 amendment specified the instant site with an omnidirectional antenna system with a request for a waiver of §73.213 of the FCC Rules.

Statement D ALLOCATIONS CONSIDERATIONS

prepared for

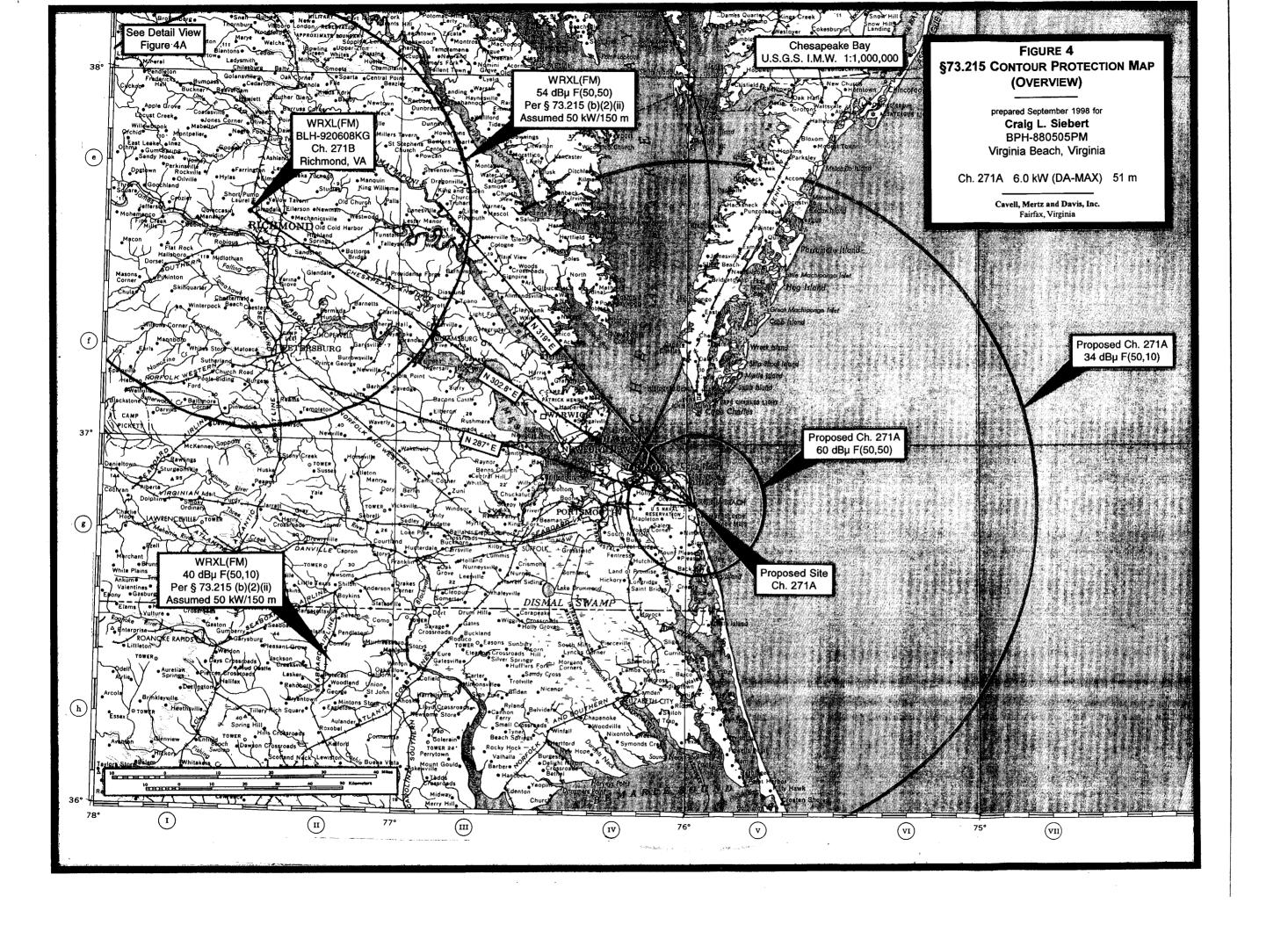
Craig L. Siebert New FM BPH-880505PM

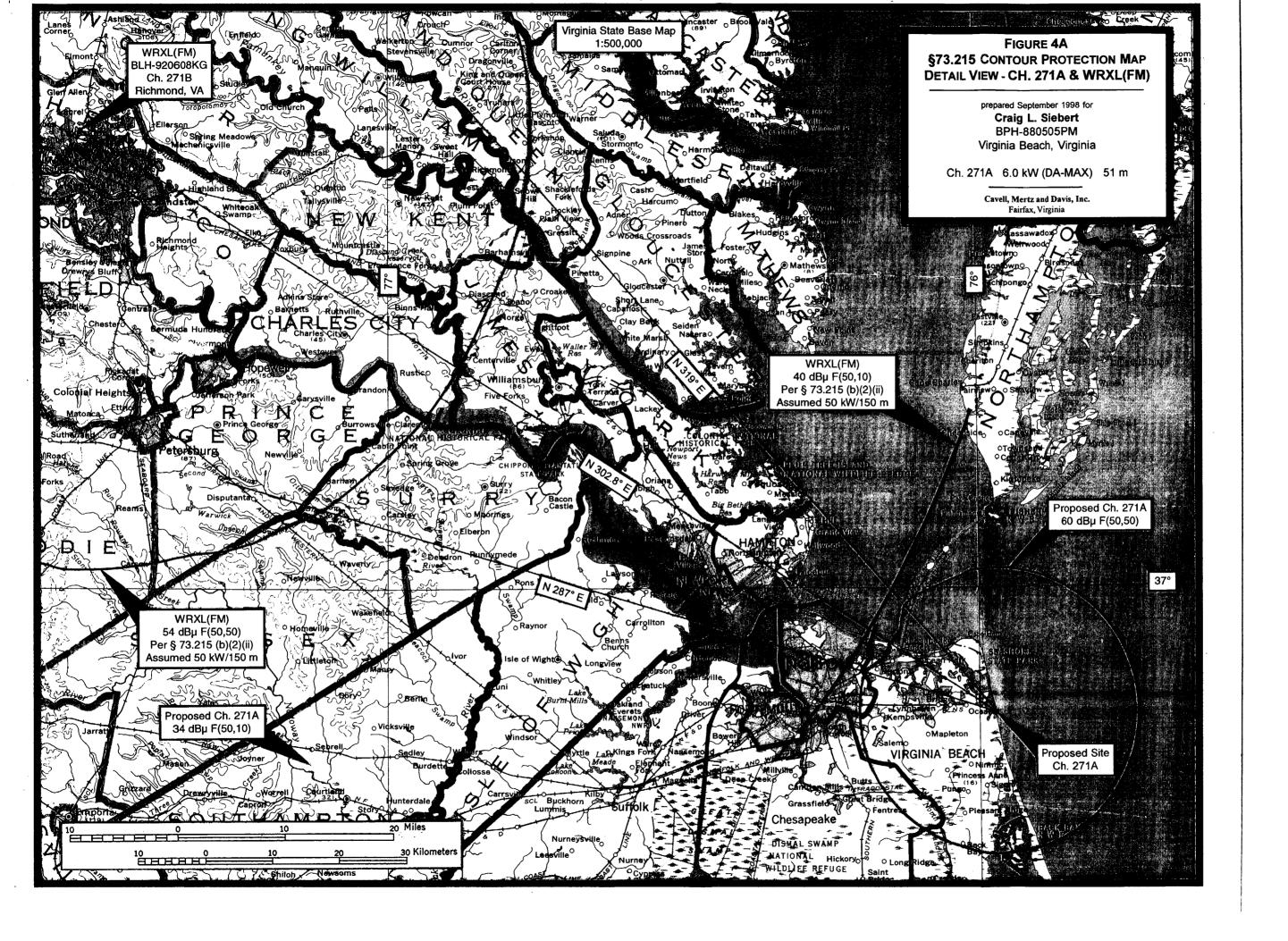
Ch. 271A 6.0 kW (DA-MAX) 51m

Virginia Beach, Virginia

The instant amendment to *Craig L. Siebert's* ("Siebert's") application for Ch. 271A at Virginia Beach meets the minimum distance separation requirements of §73.207 of the FCC Rules toward all domestic stations and allotments except for WRXL(FM) (BLH-920608KG) Ch. 271B, Richmond, Virginia. WRXL(FM) is located 162.22 km distant on a bearing of 302.8°. Table I of §73.207(b) of the FCC Rules requires a minimum distance separation of 178 km. *Siebert* is requesting authorization pursuant to §73.215 of the FCC Rules. The actual 162.2 km separation between the proposed Ch. 271A and WRXL(FM) meets the minimum distance separation requirement of 143 km as required by §73.215(e).

The interfering and protected contours for *Siebert's* proposed facility do not overlap the associated protected or interfering contours of WRXL(FM). **Figure 4** and its detail view, **Figure 4A** are maps depicting *Siebert's* proposed interfering and protected contours with the pertinent arcs of the pertinent interfering and protected contours of WRXL(FM). For WRXL(FM)(Ch. 271B - 20 kW/241m AAT), the maximum permissible Class B facilities of 50 kW/150m AAT were assumed pursuant to §73.215(b)(2)(ii). The contour locations for WRXL(FM) and *Siebert's* proposed facility, as depicted on **Figures 4, 4A,** and **6** are calculated and plotted every radial degree.





Statement E INTERFERENCE CONSIDERATIONS

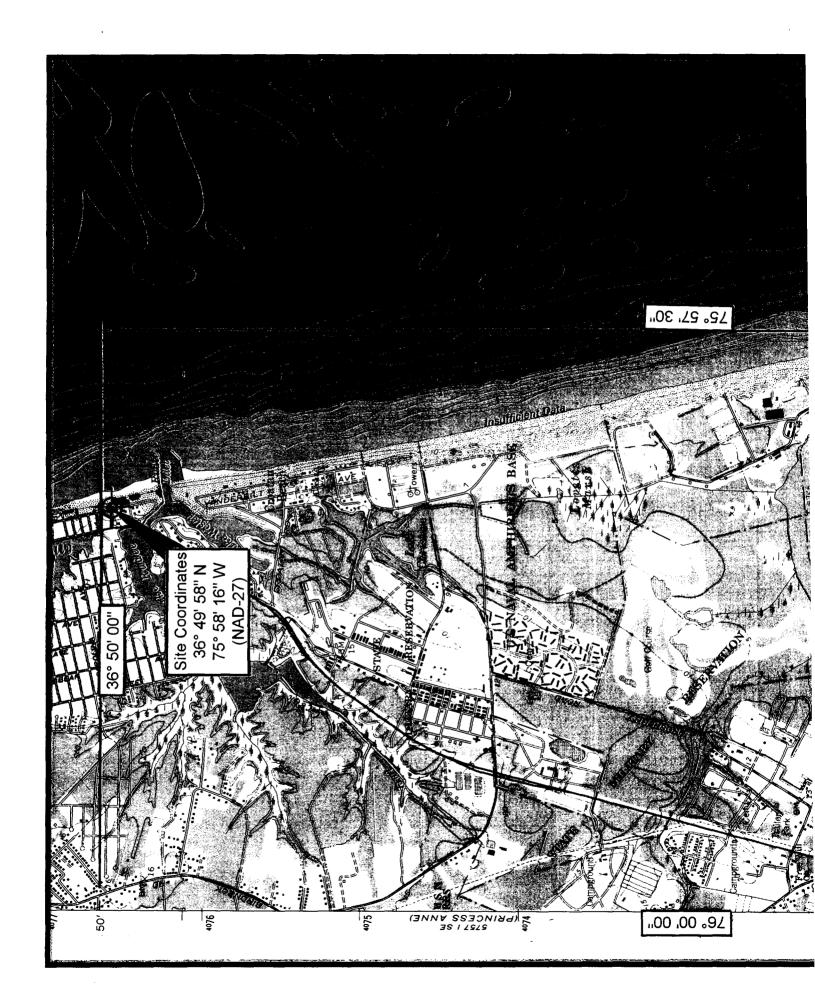
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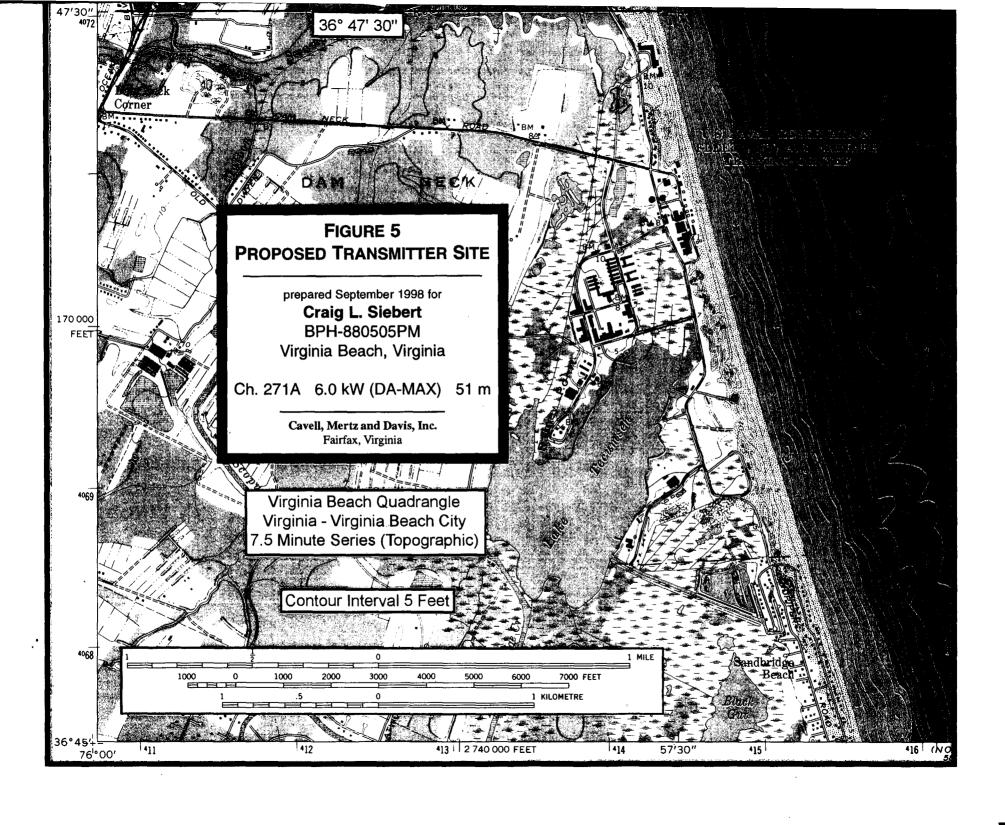
Craig L. Siebert
New FM BPH-880505PM
Ch. 271A 6.0 kW (DA-MAX) 51m
Virginia Beach, Virginia

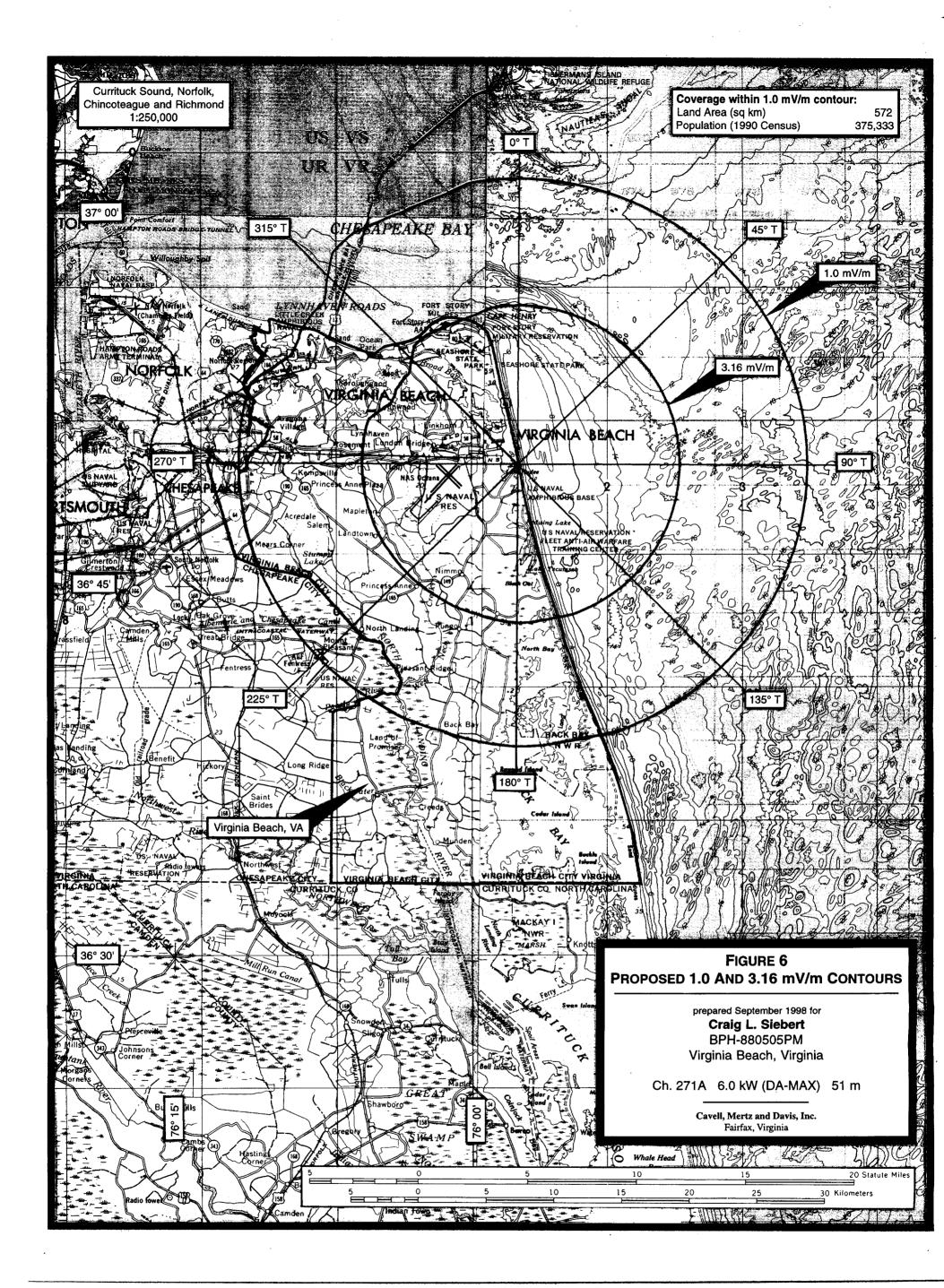
Craig L. Siebert ("Siebert") is proposing to locate his transmitting antenna on top of an existing condominium rooftop elevator blockhouse. It is believed that at least one PCS operator has a base station on a nearby building rooftop. There are no known AM broadcast stations within 3.2 kilometers. Only one (1) FM facility is located within ten (10) kilometers of the site: WODC(FM) Ch. 203A, Virginia Beach, Virginia, 9.9 km distant. One low power television station, W24OI, Virginia Beach, VA, BLTT-960603JA, 3.43 km distant is located within ten (10) kilometers of the instantly proposed site.

Due to the difference in frequencies and distances involved, no receiver induced intermodulation interference is anticipated as a result of *Siebert's* proposal in concert with any neighboring broadcast or non-broadcast communications facilities. In the unlikely event that interference does occur, *Siebert* agrees to accept the responsibility, to the extent required by the FCC Rules, to resolve those instances of interference which are attributable to his station.

There are no known receiving stations within the 0.965 km "blanketing" contour. However, *Siebert* will comply with all FCC Rules to satisfy complaints regarding blanketing interference. Mitigating measures to be employed for any occurrence of interference may include, but are not limited to, the installation of filters and traps where appropriate.







<u>Statement F</u> ENVIRONMENTAL CONSIDERATIONS

prepared for

Craig L. Siebert

New FM BPH-880505PM

Ch. 271A 6.0 kW (DA-MAX) 51m

Virginia Beach, Virginia

Craig L. Siebert ("Siebert") is proposing to locate his transmitting antenna on top of an existing condominium rooftop elevator blockhouse. It is believed that the instant application does not trigger an environmental assessment based on the list of actions set forth in §§1.1307(a) and (b).

Specifically, the site is not located in an officially designated wilderness area or wildlife preserve. It is believed that the proposed addition of an FM antenna to the condominium rooftop elevator blockhouse will not effect any known threatened or endangered species or known proposed threatened endangered species, designated or proposed critical habitats, or result in the destruction or adverse modification of proposed critical habitats. It is believed that the proposal will not affect any districts, sites, buildings, structures, or objects significant in American history, architecture, archaeology, engineering or culture known to be listed or eligible to be listed in the National Register of Historic Places. It is believed that the proposed facility will not affect any Indian religious site. The proposed facility will not involve significant changes in surface features such as wetland fill, deforestation, or water diversion. The FAA has not required high intensity white lighting as obstruction marking for the proposed increase in height of the existing building (See Figure 1).

Based on prediction methods prescribed by the FCC, operation of the proposed facility will not result in human exposure at ground level to radiofrequency radiation in excess of the applicable radio frequency radiation exposure limits of §1.1310 of the FCC Rules. *Siebert* will observe the protection guidelines to avoid exposing individuals to harmful levels of radiofrequency energy near any transmission equipment. These measures include restricting access to the immediate antenna area and areas where harmful exposure might occur, use of warning signs, and cessation of transmission as necessary during maintenance. To ensure compliance and identify any possible areas where the limit may be exceeded, *Siebert* will have RF radiation measurements taken on the rooftop and in the building following construction of the proposed facility.

Statement F ENVIRONMENTAL CONSIDERATIONS

(continued, Page 2 of 4)

Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields (OET Bulletin 65 (Ed. 97-01), FCC, August, 1997) sets forth methods of predicting power density. Siebert is proposing an ERP of 6.0 kW with a two bay, circularly polarized half wave spaced directional antenna 50.6 meters AGL. The antenna will be located on a rooftop in a restricted access area approximately 7 meters above the rooftop. The total ERP for purposes of calculating power density is the sum of the horizontal and vertically polarized ERP, 12.0 kW. At ground level, downward radiation characteristics are also taken into account over the range from -60° to -90° with a relative field value of 0.1 from a typical two bay half wave spaced circularly polarized vertical plane radiation pattern supplied by Shively Labs (See Figure 3C). Plane wave power density is predicted pursuant to OET Bulletin 65:

$$S = \frac{33.4 \times (F^2) \times ERP}{R^2}$$

S = Plane Wave Power Density (μ W/cm²)

33.4 = product of various constants from OET 65 (e.g. π , W to μ W, ERP to EIRP, m to cm, etc)

F = Relative Field Factor (relative numeric gain)

ERP = Effective Radiated Power in Watts

R = Distance from the center of radiation to head height, 2 m above ground (m)

For *Siebert*, the formula at head height at ground level is:

$$S = \frac{33.4 \times (0.1^2) \times 12,000 Watts}{(48.6m)^2} = 1.697 \mu W/cm^2$$

Siebert's proposed contribution to the power density on the ground is 0.85% of the $200~\mu\text{W/cm}^2$ limit for "General Population/Uncontrolled Exposure" and 0.17% of the $1.0~\text{mW/cm}^2$ limit for "Occupational/Controlled Exposure."

§1.1307(b)(3) of the FCC Rules states that facilities contributing less than five percent of the exposure limit at locations with multiple transmitters (such as the case at hand), are categorically excluded from responsibility for evaluating compliance with RF exposure guidelines or from taking any corrective action in the areas where its contribution is less then five percent. Since the instant

Statement F ENVIRONMENTAL CONSIDERATIONS

(continued, Page 3 of 4)

situation meets the five percent exclusion test at ground level areas, the impact of *Siebert's* proposed facility may be considered independently of any other nearby emitters.

As discussed, *Siebert* is proposing to locate on top of a residential condominium. Access to rooftop locations will be restricted by the use of locked doorways, marked with warning signs. In the event that maintenance or other work must be performed on the rooftop, personnel will be instructed as to the bounds of safe working areas. When necessary, power reduction or the complete shutdown of facilities will be practiced in co-operation with any other roof top users to allow workers access to all areas.

Following the installation of the proposed facility, the applicant will conduct RF radiation measurements to establish the bounds of safe working areas on the rooftop. Further, the rooftop is expected to provide some attenuation of power density levels and thus reduce power density to publicly accessible locations in the building. Measurements will also be performed within the building. Access will be restricted to any areas identified as exceeding the appropriate limit.

As demonstrated herein, excessive levels of RF energy will not be caused at publicly accessible areas at ground level. Access will be restricted to any areas on and near the rooftop of the condominium that measurements indicate as having RF energy levels in excess of the appropriate limit. Additionally, RF exposure warning signs will be posted. Consequently, members of the general public will not be exposed to RF levels in excess of the FCC limit of §1.1310.

With respect to worker safety, a site exposure policy will be developed and employed to protect maintenance workers from excessive exposure when work must be performed in the rooftop areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. RF exposure procedures will be coordinated with all rooftop users.

Cavell, Mertz & Davis, Inc.

<u>Statement F</u> ENVIRONMENTAL CONSIDERATIONS

(continued, Page 4 of 4)

Conclusion

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.

CRAIG L. SIEBERT 705 Melvin Avenue Suite 202 Annapolis, Maryland 21401

Application File No. BPH-880505PM
Application for a new FM Station at Virginia Beach, VA
Further Supplement to Amendment #4

I, Craig L. Siebert, hereby submit a Further Supplement to Amendment #4 to my application for a new FM station at Virginia Beach, Virginia. The Further Supplement replaces Section V-B of Amendment #4 to my application, filed on February 6, 1998.

The statements contained in this Further Supplement to Amendment #4 are true and correct to the best of my knowledge and belief, and are submitted in good faith.

Dated: 9-9-98

Craig L. Siebert

CERTIFICATE OF SERVICE

I, Lisa Y. Taylor, a secretary in the law firm of Patton Boggs, L.L.P., do hereby certify that a copy of the foregoing "FURTHER SUPPLEMENT TO PETITION FOR LEAVE TO AMEND" has been sent via U.S. Mail, First-Class postage prepaid, this 9th day of September, 1998 to the following:

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^{*} HAND DELIVERED